

ABSTRACT

A thin film transistor array substrate and manufacturing method thereof are provided. A shielding layer is formed between lead lines in a peripheral region of the substrate. The shielding layer and a gate layer may be formed simultaneously so that the light leakage between lead lines connected to a source/drain layer is reduced. Alternatively, the shielding layer and the source/drain layer may be formed simultaneously so that the light leakage between lead lines connected to a gate layer is reduced. Furthermore, a common voltage may be applied to the shielding layer so that signal interference between lead lines is reduced. Moreover, in an electrical inspection of the thin film transistor array, any short circuit between the lead lines and the shielding layer can be determined.